

# 3581

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Department of Commerce and Cabor
COAST AND GEODETIC SURVEY
Multinaure Superintendent.
State: I Lawais
DESCRIPTIVE REPORT.
AyD. Sheet No. 358/
South Coast Mani Island
1913-14

3581

### DEPARTMENT OF COMMERCE COAst and Goodetic Survey

O. H. Tittmann, Supt.

#### HAWAIIAN ISLANDS

#### SOUTH COAST OF MAUI ISLAND.

A DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC SHEET NO. 358/

Surveyed by the Steamer PATTERSON, December, 1913 and January, 1914.

#### REPORT. LIMITS .SCALE. METHODS. OBSERVER.

I have the honor to report as follows upon hydrographic sheet No. 76, which shows inshore hydrography along the south coast of Maui Island, between Kaupo Landing and Cape Hanamanioa, as done in December, 1913 and January, 1914, by a party from the Steamer PATTERSON. The scale is 1:20,000. Lines were run at intervals of 1/8 mile, or closer, the sounding being done with the hand lead, in launch #47. Paul Herberger, Mate, C. & G. Survey, was in charge of the hydrographic party. The sheet connects at its east end with the PATTERSON'S work of February and March, 1915, and at its west end with previously completed hydrography. This sheet completes the sounding around Maui Island.

GENERAL DESCRIPTION

The shore line is rocky and irregular, with occasional pebble or sand beaches at the heads of some of the bights. From Kaupo Landing to a point about 3 miles west of Nuu Landing, the vegetation extends to the shore line, but west of this, the country is almost barren, and composed of bare lava rock.

#### INSHORE DANGERS

For a distance of 100 or 200 meters off shore, the bottom is generally very irregular. At the western end of the sheet, there is a rocky ledge extending 400 meters off shore, at the outer end of which a sounding of 1 3/4 fathoms was obtained, from which the depth changes adruptly to 9 fathoms. No indication was found of the "reported rock with less than 12 feet over it, somewhere between Pohakueaea Point and Keoneoio Bay, within 1/2 mile of shore": (p.25, Coast Pilot Notes on the Hawaiian Islands, 1912) this would doubtless refer to one of the many small boulders close to the shoreline.

ANCHORAGES AND LANDING PLACES.

The anchorages and landing places were mentioned in the descriptive preport of 1915 on hydrographic sheet No. 75. Landing west of Nuu is usually difficult.

#### CURRENTS.

The currents are weak and variable: a current flows northwestward constantly past Cape Hanamanica; but anywhere eastward of this the current generally follows the coast to the eastward. It is not a tidal current in either case.

#### WORK PREVIOUSLY DONE.

Some work on this sheet had been done the previous season, and is so indicated.

SIGNALS.

The location of signals was obtained from the topographic sheets surveyed in 1912. Tidal reducers are obtained from U.S. Engineer's Tide Gauge at Hilo, Hawaii.

SHIP HYDROGRAPHY.

Beyond 30 fathoms, the sounding was done by the Steamer PATTERSON, using Bassnett pressure tubes and vertical casts. The methods of using these tubes and reducing soundings have been explained in previous reports. The soundings were plotted using horizontal offsets backward, as previously explained. The deeper ship soundings were made with the new steam sounding machine, or Sigsbee Machine.

Respectfully submitted,

G. C. Mattison

Aid. C. & G. Survey.

APPROVED:

Assistant, C. & G. Survey, Chief of Party.

Mahukono, Hawaii,

March 21, 1914.

REFER TO NO. 13

VEC

#### DEPARTMENT OF COMMERCE

#### U. S. COAST AND GEODETIC SURVEY WASHINGTON

May 19, 1914.

Assistant in Charge:

I transmit herewith for the Chart Construction Division 3 volumes of soundings, for Hydrographic sheet 3581, for the Coast of Maui Island, Hawaiian Islands, by Assistant J. B. Miller in 1913-1914.

The tide reducers and reduced soundings were entered by the field party. There is insufficient data in the office to verify satisfactorily, the plane of reference that was used, but a comparison with predicted tides indicates that this datum may have been about 3/4 foot below mean lower low water. As the evidence is not conclusive, and the probable error is in the direction of safty and also because the soundings are generally deep, the reductions as made by the field party have not been changed.

> L. P. Shidy Chief of Tidal Division.

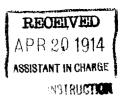
STATISTICS

358/. Sheet No. 36

SOUTH COAST OF MAUI ISLAND, HAWAIIAN ISLANDS.

(stat.) Boat Vol. Hrs. Pos'ns Sdgs Miles. Date Let. 1913 1 9.0 78 298 17.0 Dec. 29 Launch No. 47 a B 2.0 17 97 3.0 30 1 7.9 142 31 0 1 5.0 49 9.8 A 38 3 2.5 18 31 PATTERSON 1914 15.7 271 d 7.0 91 1 Launch No.47 Jan. 2 55.1  $\mathcal{B}$ 224 9.5 69 3 17 PATTERSON  $\mathcal{C}$ 28.0 3 99 5.7 40 19 11.6 5.0 87 283 1 19 Launch No.47 18.5 9.0 138 377 1&2 20 41,9 25 .  $\mathcal{I}$ 3 9.7 26 PATTERSON 20 73 35.5 E 35 3 9.6 21 4.5 82 38 2 2.0 21 Launch No.47 11.8 231 2 6.0 87 22 11.5 218 2 6.0 81 23 4.5 27 3 1.2 23 PATTERSON 3.3 G 3 1.5 3 Mar. 5 88.7 867 2488 277.4

AREA Squase Stat. Miles 99.2



SHEET NO. 76 358/

MEMORANDUM FOR THE DRAWING SECTION.

This sheet completes the sounding around Maui Island.

Several deep soundings, noted on the ship boat sheet,

are not plotted on the fair sheet because they fall outside the limit.

They are important and should be plotted on sheet A of 1913.

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## Hyd = Sheet \* 3581

The work on this sheet consists of the inshore hydrography along the south coast of Mani Dolond.

Soundings were plotted in the field, verified and in ked in the office.

Onshore dangers are described in the report of the chief of the party. Rocks recorded in the sounding looks were located by approximate distances only. No cross lines, which would afford some check on the work, were taken.

In general the area was fairly well covered and records kept in good shape throughout.

Anumber of Soundings were transferred to this sheet from Hyd= sheets 3517, 3519. Soundings glotted in fathous. J. P. Shklowin

9/19-1914.